

NOTICE OF SAFETY ADVISORY 99-3 - Securement of floor beam cross-members on RoadRailer® trailers in order to prevent the highway tandem wheels on these trailers from falling to the rails on moving trains.

On November 10, 1999, FRA published a Notice of Safety Advisory 99-3 in the Federal Register (Vol. 64, No. 217), addressing the securement of floor beam cross-members on RoadRailer® trailers. It reads as follows:

Over the past several months, FRA has discovered that several RoadRailer® trailers operated by Triple Crown Services (Triple Crown) have experienced failures of floor beam cross-members. These cross beams connect the highway tandem wheel set to the body of the trailer via slide rails. The failure of the cross beam allows the weight of the tandem wheel set to deflect the slide rails to the point where the highway tires contact the rail. The reported failures, which to date have been isolated, were discovered while the trailer was in train formation, triggered a dragging equipment detector on a moving train, or was noticed by the crew of a passing train. At this time, there have been no reported instances of tandem wheel sets separating from the trailer which may cause a derailment or undesired train stop. The trailers involved have been set out of their trains under controlled conditions without injury or loss of property.

FRA notified Wabash National Inc. (Wabash), the manufacturer of RoadRailer equipment, and requested that Wabash randomly inspect trailers at the Fort Wayne, Indiana, Triple Crown facility. The first inspection was conducted on October 12, 1999, and revealed a high percentage of four to six year old trailers with one or more cross-member defects. The cross-member defects found during the inspection could be classified into four categories:

1. A weld crack at the slide rail to I-beam cross-member;
2. A crack in the cross-member I-beam flange (which usually starts at the end of a weld);
3. A crack which has progressed into the web of the I-beam from the flange; or
4. A cross-member broken into two pieces, as a continuation of the above (See Figures 1 & 2).

A second inspection was conducted at the Fort Wayne, Indiana, facility on October 14, 1999, by representatives of Wabash, Triple Crown, and FRA. A third inspection of the facility was conducted on October 27, 1999, and included representative of the Federal Highway Administration (FHWA). The results of these two inspections were consistent with the observations made in the earlier inspection.

The practice of attaching the tandem wheel set slide rails to the trailer body by welding to floor cross-member I-beam flanges has been the accepted method of highway trailer fabrication for many years. This method is currently being used by nearly all van trailer manufacturers, and is considered safe and reliable when properly applied. It should be noted that there are some RoadRailer® trailers which have

been in service since January 1988 that have not exhibited signs of weld or cross-member cracking in the above noted areas. Currently, the entire fleet of Triple Crown RoadRailer® trailers are in the process of inspection or repair. All inbound and outbound trailers are being inspected and depending upon the condition of the trailer, it may be withheld from service, transloaded, or repaired prior to being assembled into a train. At this time, the manufacturer is considering one broken floor beam cross-member or four successive cross-members with cracks to be sufficient cause to withhold the trailer from service or repair the trailer prior to continuing it in service.

Recommended Action:

Until the root cause of the floor beam cross-member failures can be determined, and the appropriate long-term repairs effectuated, FRA recommends that the following action be taken with regard to all Triple Crown RoadRailer® trailers:

- ! Each trailer should be inspected upon receipt at a facility from a highway motor carrier prior to being transferred to the rail mode. If any of the four conditions noted above are found, the trailer should be held until a repair can be made to correct the deficiency, or if loaded, the lading should be transferred to another unit.
- ! All such inbound trailers should be inspected upon arrival of the train prior to transfer to the highway mode. If any of the four conditions noted above are found, the trailer should be held until a repair can be made to correct the deficiency, or if loaded, the lading should be transferred to another unit.
- ! Upon identification of any of the four conditions listed above, the FRA point of contact listed above should be notified in addition to any action taken.
FRA may modify Safety Advisory 99-03, issue additional safety advisories, or take other appropriate action to ensure the highest level of safety on the Nation's railroads.

Issued in Washington, D.C., by George Gavalla, Associate Administrator for Safety